

Notice of Allowability	Application No. 10/603,076	Applicant(s) TAKEDA ET AL.
	Examiner Craig E. Walter	Art Unit 2188

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. This communication is responsive to Applicant's amendment received on 9/17/05 and telephonic interview held on 12/13/05.
2. The allowed claim(s) is/are 1,5-10 and 12-20 (original numbering); 1-16 (as renumbered by Examiner).
3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some* c) None of the:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) hereto or 2) to Paper No./Mail Date _____.
 - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. Notice of References Cited (PTO-892)
2. Notice of Draftperson's Patent Drawing Review (PTO-948)
3. Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 10/24/05, 9/22/05, 12/13/05
4. Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. Notice of Informal Patent Application (PTO-152)
6. Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. Examiner's Amendment/Comment
8. Examiner's Statement of Reasons for Allowance
9. Other _____.

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Shrinath Malur on 13 December 2005.

Claim 10 should be amended to read as follows:

The data processing system of claim 1, wherein the first copy manager and the second copy managers are asynchronous copy managers, and the first storage subsystem and the second storage subsystems are provided in remote locations from each other.

Information Disclosure Statement

2. The three information disclosure statements (IDS) submitted on 24 October 2005, 22 September 2005, and 2 December 2005 were fully considered by the Examiner.

Allowable Subject Matter

3. Claims 1, 5-10 and 12-20 are allowed.
4. The following is a statement of reasons for the indication of allowable subject matter:

As for claim 1, West et al., hereinafter West (US Patent 6,6446,175 B1) discloses a data processing system, comprising:

a first storage system (column 5, lines 43-44; primary computer system, Figure 1 element 102) including a first host (column 5, lines 57-58; host system, Figure 1, element 108) has a first storage subsystem (column 6, lines 59-60; primary storage medium, Figure 1, element 112), wherein the first host having access to a first copy manager (column 6, lines 1-2; primary storage controller, Figure 1, element 110), the first copy manager being operable to manage a data replication operation, and the first storage subsystem is a disk array device including a first storage controller and first disk devices (column 6, lines 47-51, the secondary system is used to receive data from the primary storage controller) – Fig. 1 depicts the first subsystem comprising an array of disks (element 112) and a controller (element 110);

a second storage system (column 6, lines 32; secondary computer system, Figure 1 element 104) including a second host (column 6, line 46; remote host system, Figure 1, element 128) and a second storage subsystem (column 6, line 42; secondary storage medium, Figure 1, element 126), wherein the second host has access to a second copy manager (column 6, lines 1-2; secondary storage controller, Figure 1, element 116), the second copy manager being operable to manage a data replication operation, and the second storage subsystem is a disk array device including a second storage controller and second disk devices – Fig. 1 depicts the second subsystem comprising an array of disks (element 126) and a controller (element 116); Note in column 6, lines 54-57 West et al.'s discloses the utilization of a

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link to facilitate the transfer of commands and requests from the primary storage controller to the secondary storage controller. The two controllers themselves are being utilized to send and receive the data during replication hence they are responsible for overseeing these operations.

a first communication link (column 6, lines 53-54; Figure 1, element 118) coupling the first storage system and the second storage system to exchange management information between the first and second storage systems to manage the data replication operation, the management information including first control information transmitted from the first host to the second host (column 6, lines 54-57, the link facilitates the transfer of commands and requests from the storage controller);

and a data transfer path coupling the first storage subsystem and the second storage subsystem (column 6, lines 53-54; Figure 1, element 119), which is configured to transfer data stored in the first storage subsystem to the second storage subsystem and replicate the data of the first storage subsystem in the second storage subsystem, the data transfer path being different from the first communication link (column 6, lines 59-65, link 119 is used to transfer data to the storage controller. Both links can be either uni-directional or bi-directional).

West however fails to teach the second host as transferring a copy request by using the first control information received from the first host through the first communication link, wherein the second storage subsystem is configured to receive the copy request from the second host, and transmit a data transfer request to the first storage subsystem, and wherein the first storage subsystem is configured to transmit

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data stored in the first storage subsystem to the second storage subsystem via the data transfer path upon receiving the data transfer request from the second storage subsystem.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Craig E. Walter whose telephone number is (571) 272-8154. The examiner can normally be reached on 8:30a - 5:00p M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mano Padmanabhan can be reached on (571) 272-4210. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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Examiner
Art Unit 2188

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